

REMARKS

In the final Office Action¹ mailed December 11, 2008, the Examiner rejected claims 1-4 and 11-13 under 35 U.S.C. §103(a) as being unpatentable over Namasivayam et al. ("Electrostretching DNA Molecules Using Polymer-Enhanced Media within Microfabricated Devices," Anal. Chem. 2002, 74, 3378-3385, hereafter "Namasivayam") in view of Lee et al. (IEEE-NANO 2003, Third IEEE Conference on Nanotechnology, 12-14 August, 2003, vol. 2, pp. 729-732, hereafter "Lee").

By this Amendment, Applicants propose to amend claim 1. Support for the claim amendments can be found in the Specification at, for example, page 11, lines 3-15. Claims 1-4 and 11-13 remain pending and under consideration.

Applicants respectfully traverse the rejection of claims 1-4 and 11-13 under 35 U.S.C. §103(a) as being obvious over Namasivayam in view of Lee.

Upon entry of this Amendment, claim 1 would recite a method for stretching a single-stranded nucleic acid, comprising, among other things, "providing a reaction detecting section including a first electrode, a second electrode, and a reaction well sandwiched between the first electrode and the second electrode, . . . the first electrode having a surface area smaller than that of the second electrode; . . . and migrating the stretched single-stranded nucleic acid toward the first electrode," (emphasis added).

Namasivayam and Lee, alone or combined, fail teach or suggest at least migrating the stretched single-stranded nucleic acid toward the first electrode.

¹ The Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicants decline to automatically subscribe to any statement or characterization in the Office Action.

Namasivayam, at pages 3384 and 3385, discloses, "DNA molecules could be captured at the tapered electrode, immobilized using the thiol linker, and then stretched in the LPA-enhanced medium," (emphasis added). Namasivayam, at page 3385, further discloses, "a single DNA molecule can be stretched and *bridged* over the two electrodes as shown in Figure 8," (emphasis in original), and "[w]hen the electric field is turned off, the stretched molecule relaxes back and recoils onto the pointed electrode (Figure 9d)," (emphasis added). Accordingly, Namasivayam at best discloses migrating the stretched DNA molecule toward the tapered electrode or the pointed electrode, which has a surface area greater than that of a straight electrode. Accordingly, Namasivayam fails to teach or suggest, "migrating the stretched single-stranded nucleic acid toward the first electrode," as recited in amended claim 1 (emphasis added), because "the first electrode having a surface area smaller than that of the second electrode," as also recited in amended claim 1.

Lee fails to cure the deficiencies of Namasivayam. Accordingly, claim 1 distinguishes over Namasivayam and Lee.

Claims 2-4 and 11-13 depend from claim 1 and distinguish over Namasivayam and Lee at least due to their dependence.

Applicants respectfully request that this Amendment under 37 C.F.R. § 1.116 be entered by the Examiner, placing this application in condition for allowance.

Alternatively, Applicants submit that the entry of the amendment would place the application in better form for appeal, should the Examiner dispute the patentability of the pending claims.

In view of the foregoing remarks, Applicants respectfully request reconsideration of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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